



# Clark County Influenza Surveillance Update

CDC Week 3 (January 15— January 21)

*All data are preliminary and may change as more reports are received*

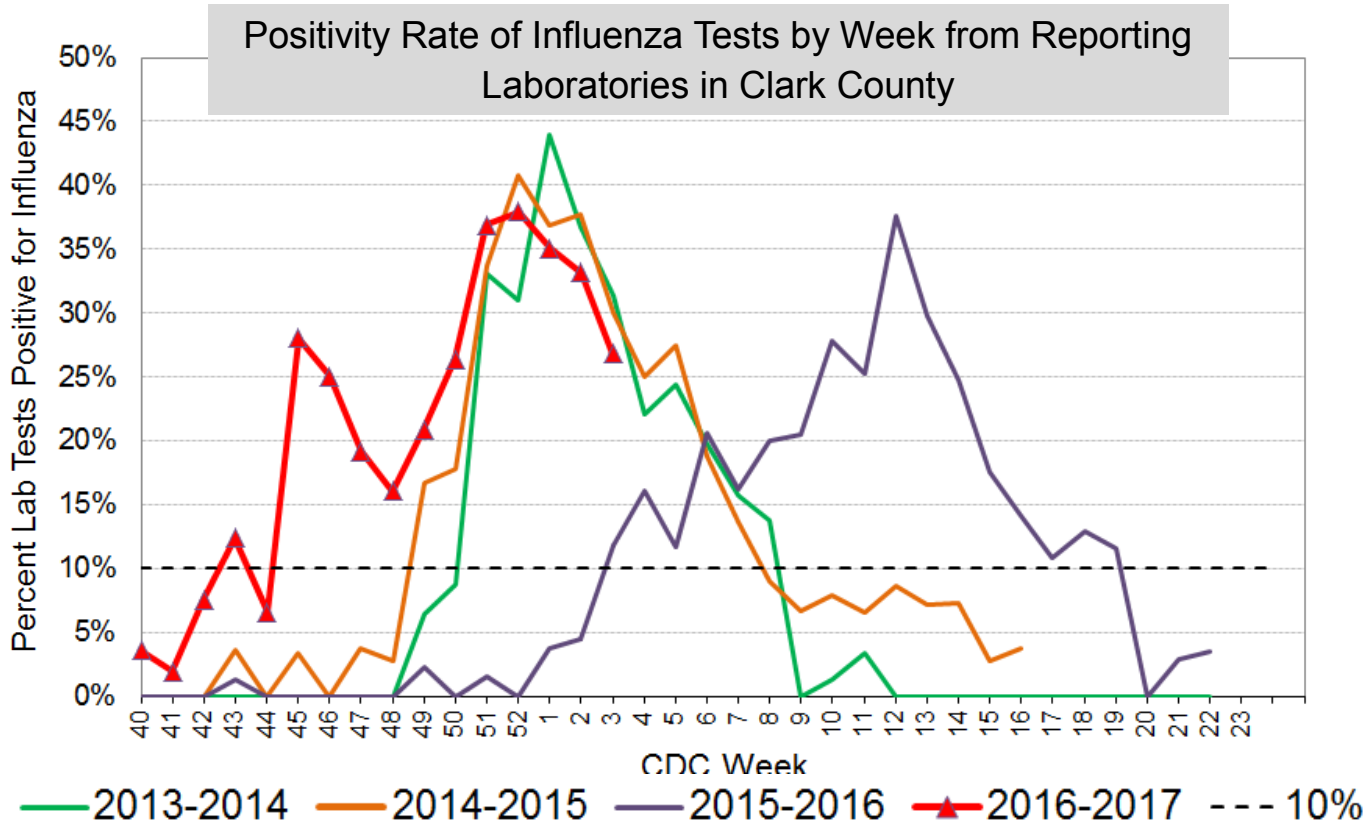
## Summary

- During Week 3, influenza positivity in Clark County reached its lowest point since mid-December at 26.7%.
- Cowlitz County influenza rates continued to climb in Week 3, up to a 41.3% positivity rate.
- Washington State reported 24.8% of influenza tests as positive in Week 2, while national positivity levels reached 18.4%.
- Reported ILI at the state and national level during Week 2 was at 3.7% and 3.4%, respectively, significantly higher than the non-influenza season threshold of 1.1%

## Laboratory Data from Reporting Laboratories

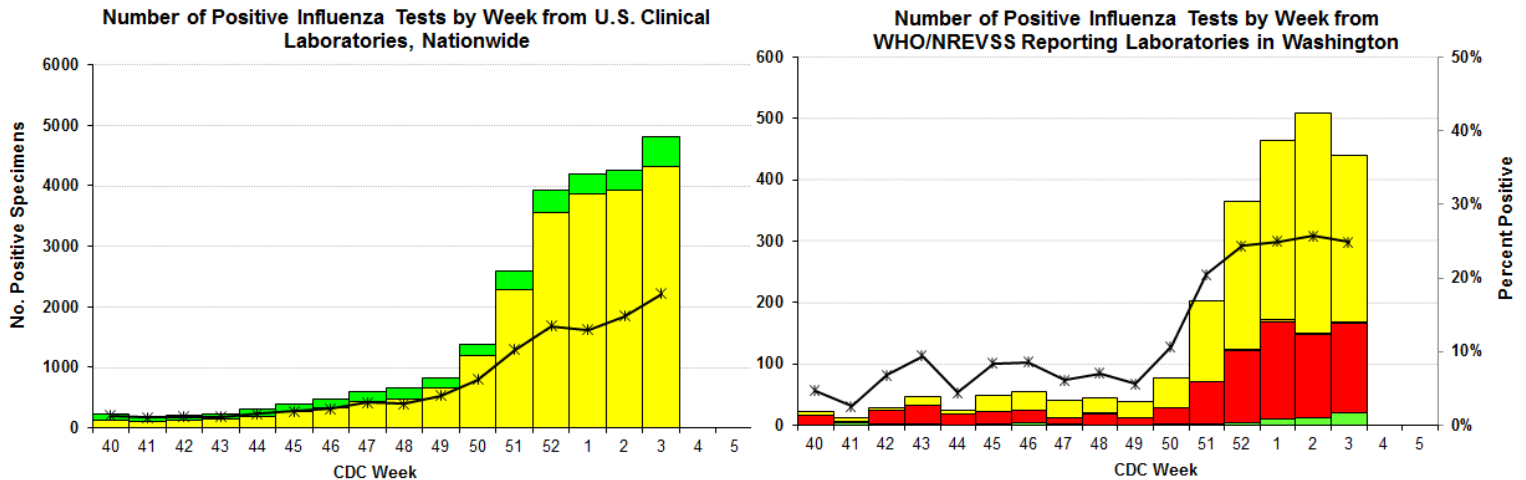
The positivity rate is the percent of influenza tests done by reporting laboratories for this influenza season that are positive. Historically, the CDC has used  $\geq 10\%$  positivity to define flu seasons for modeling studies and for calculating influenza-like-illness baselines.

2016-2017									
CDC Week	Date Range	A (H1)	A (2009 H1N1)	A (H3)	A (not sub-typed)	Type B	Total influenza	No. Tested	Positivity
1	1/1-1/7	0	0	0	170	1	171	488	35.0%
2	1/8-1/14	0	0	0	146	0	146	440	33.2%
3	1/15-1/21	0	0	0	105	3	108	403	26.8%

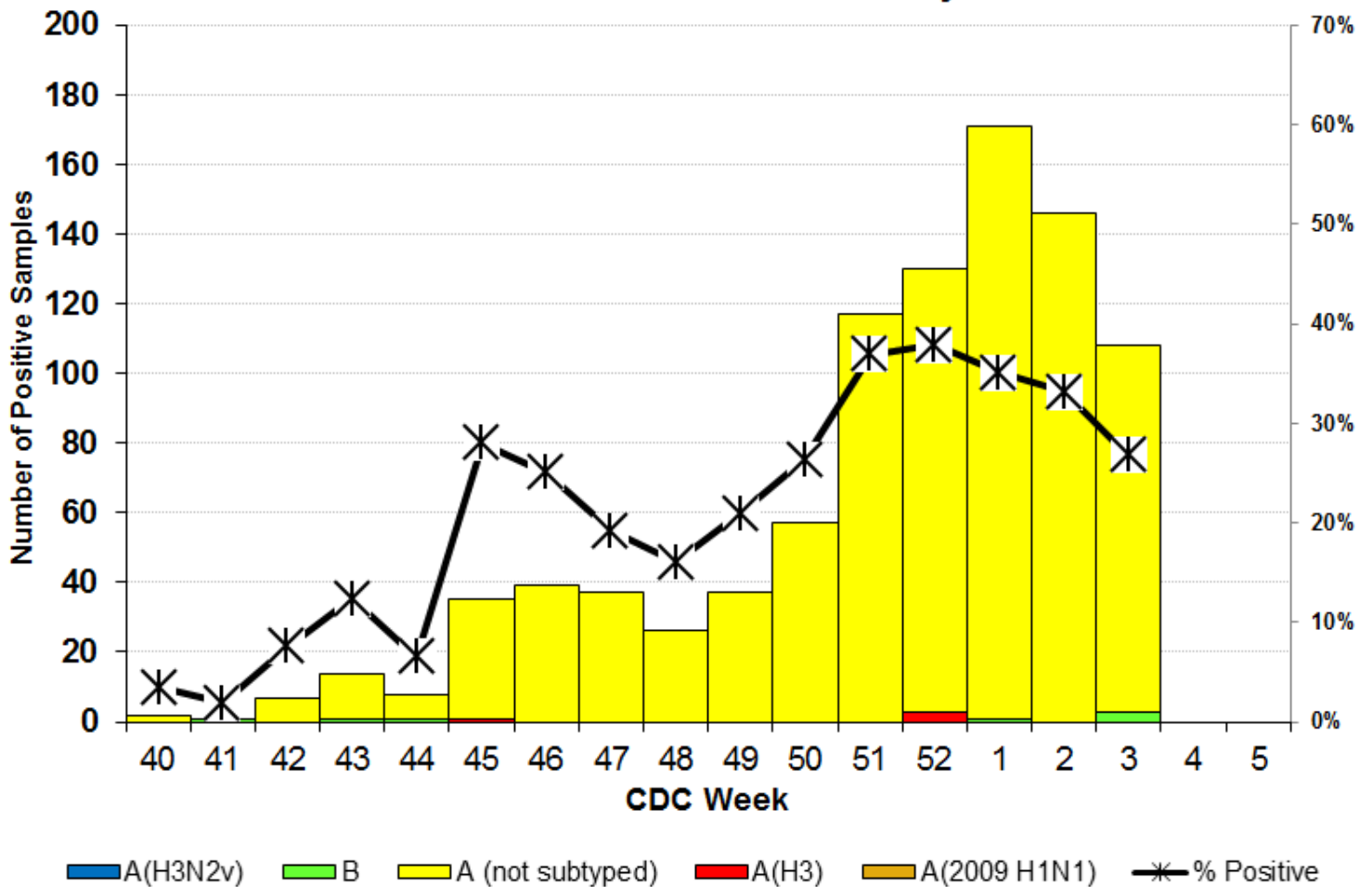


## Circulating Strains from Reporting Laboratories

Reporting laboratories also report what strain of influenza came back positive. The colored bars represent how much of each strain of influenza is being reported while the black line is the percent of reported lab tests being positive. During Week 3, CDC reported 18.4% of influenza tests as positive, while Washington State reported a 24.8% positivity rate. These rates are still lower than Clark County's positivity rate of 26.7%, but do reflect similar trends seen throughout peak influenza season.



### Number of Positive Influenza Tests by Week from Reporting Laboratories in Clark County



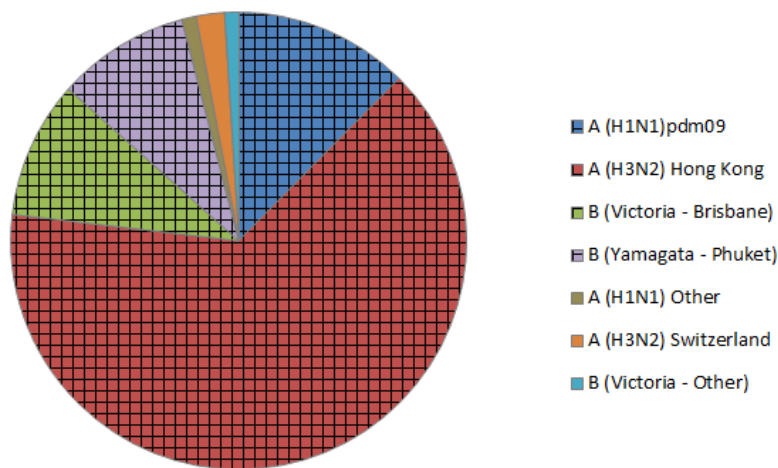
## Vaccine Strains and Vaccine Match

2016-2017 influenza vaccines include either 3 or 4 strains of influenza. The trivalent vaccines cover the influenza A (H1N1), influenza A (H3N2 Hong Kong), and influenza B (Victoria lineage) strains, while the quadrivalent vaccines include an additional influenza B (Yamagata lineage) strain.

As influenza season continues, CDC antigenically characterizes a portion of influenza viruses it receives to see how well they match the vaccine strains. For the more details, visit [CDC's FluView website](#). From October 1, 2016 to January 21, 2017, CDC has characterized 298 influenza viruses. Of those, 286 (96%) were virus strains antigenically similar to those included in either the trivalent or quadrivalent 2016-2017 seasonal influenza vaccine. Below is a figure illustrating viruses characterized by CDC and those included in the seasonal vaccine (hatched).

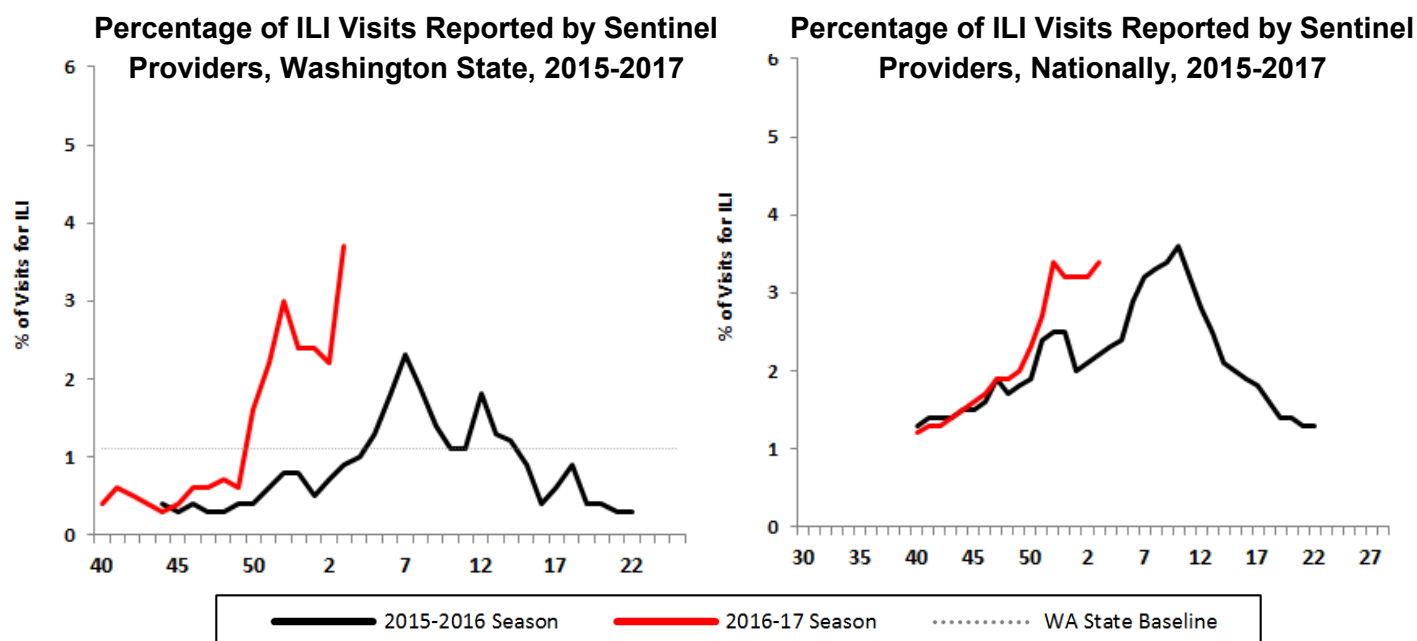
**Influenza Viruses Characterized by CDC, October 1, 2016 - January 21, 2017 (N=298)**

Grid pattern indicates the strain is included in the trivalent or quadrivalent seasonal vaccine



## Influenza-like-Illness (ILI)

Sentinel Provider Data are the percent of patient visits to a clinic that meet the case definition for influenza-like illness (ILI). ILI is defined as fever  $\geq 100^{\circ}\text{F}$  or  $37.8^{\circ}\text{C}$  (oral or equivalent) AND cough and/or sore throat (in the absence of a known cause other than influenza). During Week 3, National ILI patient visits were 3.4%, while Washington influenza-like-illness measures spiked to 3.7%, well exceeding the baseline of 1.1%.



## Other Respiratory Diseases of Interest

### Avian Influenza

Since August 2016, avian influenza in birds/poultry has been reported in India, China, Europe, Japan and Europe. In humans, the majority of avian influenza H5N1 cases have been [reported](#) out of Egypt, while China has reported sporadic H7N9 human cases since the spring of 2013. Most recently, a low-pathogenic strain of avian influenza H7N2 was identified in over 450 cats housed in several [New York City shelters](#), with one human case identified as a result.

### H7N9 in China

On January 27, the CDC issued a travel warning in response to the unusually active H7N9 avian influenza strain in China. Health authorities confirmed 120 new cases and 37 deaths have been reported as a result of the virus since September 2016. H7N9 was first reported in humans in March of 2013; since then, 918 lab confirmed cases of the virus have been reported. Human H7N9 activity tends to follow the seasonal influenza cycle, and can cause considerable mortality among infected persons (~40%).

### MERS-CoV

December and January have shown increases in MERS-CoV activity in the Arabian peninsula. Since the start of surveillance in 2012, there have been 1544 laboratory confirmed cases and 641 deaths, for a fatality rate of nearly 42%. Thus far in 2017, 24 new cases have been identified in Saudi Arabia alone.

### Measles

A report published by the [World Health Organization](#) indicated that nearly 400 children still die from measles every day, many of which have fallen through the cracks in vaccination efforts. A majority of these deaths originate in African and Asian nations such as Ethiopia, India, the Democratic Republic of Congo, and Pakistan. Despite these statistics, the report also noted the progress made in combatting the disease, with increases in routine measles vaccination resulting in a 79% decrease in measles deaths worldwide, saving an estimated 20.3 million lives since 2000.

### H3N2v Influenza in the United States

Over the summer of 2016 an outbreak of H3N2 variant (H3N2v) influenza was detected in Michigan and Ohio that included 18 human infections. The outbreak was associated with agricultural fairs housing infected swine. Although H3N2v is a novel influenza strain, no human-to-human transmission was detected in this outbreak, suggesting that the pandemic potential was limited. For more information, check out the [CDC report](#) for this outbreak.

# Cowlitz County Influenza Surveillance Update

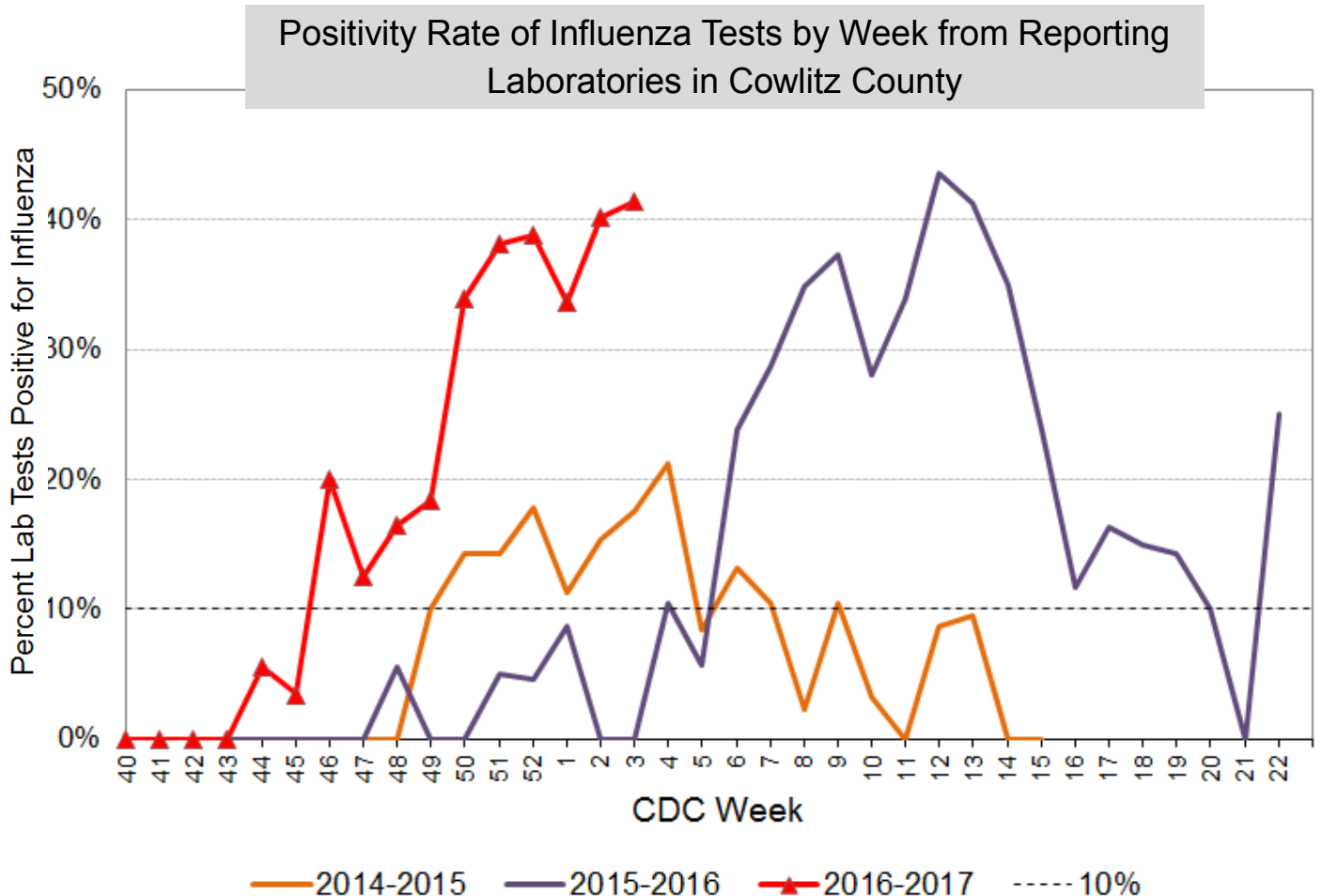
Cowlitz and Clark Counties are sister local health jurisdictions in Washington State. Although separate entities, both share a common goal of preventing disease and promoting public health. To that end, Cowlitz and Clark County often partner in disease response efforts. This year, Cowlitz and Clark counties will continue working together to provide reliable influenza surveillance.

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## Laboratory Data from Reporting Laboratories

The positivity rate is the percent of influenza tests done by reporting laboratories for this influenza season that are positive. Historically, the CDC has used  $\geq 10\%$  positivity to define flu seasons for modeling studies and for calculating influenza-like-illness baselines.

CDC Week	Date Range	A (H1)	A (2009 H1N1)	A (H3)	2016-2017 A (not sub-typed)	Type B	Total influenza	No. Tested	Positivity
1	1/1-1/7	0	0	0	64	0	64	190	33.7%
2	1/8-1/14	0	0	0	74	14	88	219	40.2%
3	1/15-1/21	0	0	0	67	38	105	254	41.3%



## Influenza in Local News

Flu hospitalizations set new record in Portland area

[http://www.oregonlive.com/health/index.ssf/2017/01/flu\\_hospitalizations\\_sets\\_new.html](http://www.oregonlive.com/health/index.ssf/2017/01/flu_hospitalizations_sets_new.html)

Flu deaths increase to 114 in Washington state

<http://koin.com/ap/flu-deaths-increase-to-114-in-washington-state/>

Clark County flu outbreak continues; two deaths reported

<http://www.columbian.com/news/2017/jan/13/clark-county-flu-outbreak-continues-two-deaths-reported/>

Flu epidemic sweeps through Oregon, Washington

<http://koin.com/2017/01/09/flu-epidemic-sweeps-through-oregon-washington/>

Clark County hospitals deal with increase in flu cases

<http://www.camaspotrecord.com/news/2017/jan/12/clark-county-hospitals-deal-with-increase-in-flu-cases/>

## Resources on Influenza Activity in Washington and Nationwide

National influenza surveillance data are available at:

<http://www.cdc.gov/flu/weekly/>

Washington influenza surveillance data are available at:

<http://www.doh.wa.gov/Portals/1/Documents/5100/420-100-FluUpdate.pdf>

Oregon influenza surveillance data available at:

<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/Influenza/Pages/surveil.aspx>

Recommendations of the Advisory Committee on Immunization Practices – ACIP – Influenza 2016-2017:

<http://www.cdc.gov/flu/professionals/acip/index.htm>

Disease outbreak news from the World Health Organization (WHO):

<http://www.who.int/csr/don/en/>

CDC Seasonal Influenza doses distributed:

<http://www.cdc.gov/flu/professionals/vaccination/vaccinesupply.htm>

## Contact Information

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